



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/546,247

04/10/2000

Edward J. Van Liew

10990102-1

3629

22879

7590

03/25/2004

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

JONES, DAVID

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 03/25/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/546,247

Applicant(s)

VAN LIEW ET AL.

Examiner

David L Jones

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 19-32 and 35-37 is/are allowed.
- 6) ☒ Claim(s) 18, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 6/30/2000 was filed after the mailing date of the application on 4/10/2000. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 18 recites the limitation "a maximum print density of the forensic marking within the rectangular array is less than five percent" in the specification the basis is for approximately 1.5 percent. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 33 is rejected under 35 U.S.C. 102(e) as being anticipated by Wataya (US 6,646,764).

**Regarding claim 33**, Wataya discloses a method for printing a forensically marked

Art Unit: 2622

image on a print medium with a printer, comprising:

obtaining a swath of image data corresponding to a source image, Wataya details that the computer transmits print information inclusive of attribute information of a printer and computer being utilized (fig. 5, column 7, lines 53-67 and column 8, lines 1-9);

if more than a threshold amount of color data exists in the swath of image data, superimposing onto the image data a swath of at least one forensic marking having an encoded pattern of image pixels in graphical form, in column 9, lines 37-57, Wataya details that the process of imprinting the encoded data is done by printing the black line first and lastly printing the encoded data with the yellow ink on top of the black, thereby from the instant application would exceed the threshold amount therefore meeting all the limitations and performing the same function.

Printing the image data on the print medium so as to generate a swath of the forensically marked image (column 7, lines 53-67 and column 8, lines 1-9); and repeating the obtaining, superimposing, and printing until all the swaths of the image data are printed.

A swath is being defined as each pass of the printhead.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2622

6. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wataya (US 6,646,764) and further in view of Fujimoto et al. (US 5,539,539).

**Regarding claim 34,** Wataya discloses a method for printing a forensically marked image on a print medium with a printer, Wataya does not explicitly detail that a threshold amount of color data is 64 pixels. Wataya teaches that the encoded data can be printed in any area that a user wishes as detailed in column 9, lines 4-63.

But Fujimoto et al. teaches that the print density threshold can be set between 0 and 255 in pixel gradations (column 11, lines 42-65).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the specific pixel area as taught by Fujimoto et al. with Wataya.

The suggestion/motivation for combining would be to restrict so that the color conversion or print density does not contain the original color of the paper so that the image can be seen when printed without becoming a blur or being distorted.

Therefore, it would have been obvious to combine Wataya with Fujimoto et al. to create the limitations as specified in claim 34.

***Allowable Subject Matter***

7. Claims 1-17, 19-32 and 35-37 are allowed.
8. The following is an examiner's statement of reasons for allowance:

The prior art of record do not teach or suggest the limitation of a processor for superimposing onto source data at least one forensic marking so as to create output data corresponding to the forensically marked image, and at least on marking having an information

Art Unit: 2622

marker indicative of the system created with, and a checksum marker proximate the information marker and indicative of the information marker.

The related art of record related to watermarking printing systems and method are listed below.

Wataya (US 6,646,764) teaches that a system and method that encodes the information of the computer and printer information, the output means is adapted so as to output the image data, to which the identification has been added by an adding means and printed with a yellow ink, which is difficult to discern with the human eye. But Wataya does not teach that the information is encoded utilizing a checksum.

Funada et al. (US 5,257,119) teaches an image processing system capable of identifying, from a reproduced image; an image processing apparatus, which has been used to reproduce an image. And further, the ability to decide if an image can be copied or denial of copying depending if the image is encoded. Adds encoding to the copied image that is not discernable by the human eye or imparts a blocked part of the image to inform that the image has been copied. But Funada et al. does not teach the ability to encode the data within a checksum.

Daly et al. (US 6,044,182) teaches a method of embedding digital data in a source image includes the steps of: a) generating a multi-level data image representing the digital data; b) convolving the multi-level data image with an encoding carrier image to produce a frequency dispersed data image; and c) adding the frequency dispersed data image to the source image to produce a source image containing embedded data. The data is recovered from the image by: a) cross correlating the source image containing embedded data with a decoding carrier image to recover the data image; and b) extracting the digital data from the recovered data image. And

Art Unit: 2622

Daly explicitly details that adding a checksum would create a blurred image and does not use a checksum within the application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L Jones whose telephone number is (703) 305-4675. The examiner can normally be reached on Monday - Friday (7:00am - 3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David L. Jones

  
EDWARD COLES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600